AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application.

1. (Currently Amended) A wireless local area network (LAN) communication system using a carrier sense multiple access (CSMA) method, comprising:

a base station; and

plural terminals, wherein the base station comprises:

data classification means for classifying data to be transmitted to the terminals into audio data and terminal-basis ordinary data and generating downstream ~~data~~ communication traffic information,

queuing means for generating an ordinary data transmission queue and an audio data transmission queue by queuing the data classified by the data classification means,

communication quality control parameter setting means for setting communication quality control parameters respectively for the ordinary data transmission queue and the audio data transmission queue,

a transmission and reception portion for transmitting data from the ordinary data transmission queue and from the audio data transmission queue according to the communication quality control parameters at ~~a~~ time of transmission,

reception data detection means for acquiring upstream communication traffic information from reception data received from each of the terminals, and

communication quality control parameter control means for ~~dynamically adjusting each of the communication quality control parameters in~~ controlling the communication quality control parameter setting means by dynamically adjusting, for each of the terminals, the communication quality control parameters, based on the downstream and upstream communication traffic information.

2. (Previously Presented) The wireless LAN communication system according to claim 1, further comprising queuing weighting control means for controlling weighting in queuing by the queuing means, based on the downstream and upstream communication traffic information.

3. (Previously Presented) The wireless LAN communication system according to claim 1, wherein the queuing means limits length of a queue for each of the terminals and discards data overflowing the queue.

4. (Previously Presented) The wireless LAN communication system according to claim 1, wherein:

the base station further comprises terminal communication quality control parameter control means for periodically generating, for each of the terminals, a beacon for adjusting the communication quality control parameters for data transmission in each of the terminals, based on the downstream and upstream communication traffic information; and

at least one of the terminals comprises:

classification means for classifying data to be transmitted to the base station into audio data and ordinary data,

communication quality control parameter setting means for setting communication quality control parameters respectively for the audio data and the ordinary data, the communication quality control parameters being respectively and dynamically adjusted through the beacon, and

a transmission and reception portion for transmitting the ordinary data and the audio data based on the communication quality control parameters at the time of transmission.

5. (Currently Amended) The wireless LAN communication system according to claim 4, wherein the communication quality control parameter control means and the terminal communication quality control parameter control means ~~of the at least~~

~~one terminal~~ control delay time and priority of the communication quality control parameters for the audio data always to be shortest and highest, respectively.

6. (Previously Presented) The wireless LAN communication system according to claim 4, wherein

the base station further comprises communication control means for creating an active terminal count table, which shows transmission and reception state at each of the terminals, based on the downstream and upstream communication traffic information, and

the communication quality control parameter control means and the terminal communication quality control parameter control means control the communication quality control parameters for downstream and upstream transmission, based on the active terminal count table, such that downstream and upstream communications are equal.

7. (Previously Presented) The wireless LAN communication system according to claim 6, wherein:

the base station further comprises a transmission rate coefficient table which shows predetermined transmission rate coefficients for transmission rates to equalize a transmission time in communications, and

the transmission rate coefficients are taken into consideration when the communication quality control parameter control means and the terminal communication quality control parameter control means control the communication quality control parameters.

8. (Previously Presented) The wireless LAN communication system according to claim 6, further comprising queuing weighting control means for controlling weighting in queuing by the queuing means, based on the downstream and upstream communication traffic information, wherein, in response to an instruction from an upper side of the base station, the terminal communication quality control parameter

control means controls the communication quality control parameter control means in a terminal through the beacon, and the queuing weighting control means controls weighting in queuing by the queuing means to control communication traffic to a particular terminal.

9. (Currently Amended) The wireless LAN communication system according to claim 4, wherein the beacon generated by the terminal communication quality control parameter control means includes information for making a terminal that does not ~~including~~ include a communication quality control parameter control means incapable of transmitting data for a period of time in a beacon period.